

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 70.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-008784**Date Inspected:** 26-Aug-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1630**Contractor:** Japan Steel Works**Location:** Muroran, Japan**CWI Name:** Chung Fu Kuan**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower, Jacking, and Deviation Saddles**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. Art Peterson was present during the times noted above for observations relative to the work being performed in Fabrication shop #4 and the Foundry at Japan Steel Works.

Fabrication Shop #4:

Grinding Operation in-process on Stiffener plates of Saddle: Tower Saddle Segment T1-3

The QA Inspector observed JSW personnel performing the grinding operation on the PJP completed groove welds on the stiffener plates welded to the rib, stem and trough of tower saddle T1-3. The completed welds were being ground to a visual acceptable profile prior to Quality Control (QC) Inspector Mr. Chung Fu Kuan performing a visual inspection for acceptance in accordance with the approved shop drawings and AWS D1.5-2002 Section 3.6. The QA Inspector observed that the grinding operation was in-process at the end of the QA Inspectors' shift.

NDT Operation in-process on Saddle: West Deviation Saddle Segment W2-W3

The QA Inspector observed Nikko Inspection Services (NIS) Quality Control (QC) NDT Inspector Mr. R. Kumagai (#132) performing the magnetic particle test (MPT) inspection (dry method) on the partial-joint penetration (PJP) groove welds on the rib plate (built-up section) to rib (cast section) and the stem plate (built-up section) to stem (cast section) after the final post weld heat treatment (PWHT) stress relief operation of west deviation saddle segment W2-W3. The QA Inspector observed that the MPT inspection was in process at the end of the QA Inspectors' shift.

Fit-up and Tack-Weld Operation in-process on Pipe Sleeves for the West Deviation and West Jacking Saddles

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The QA Inspector observed the fit-up and tack-weld operation on the ASTM A709M Grade 345 steel flange to ASTM A106 (2") schedule 80 pipe to a length of (1008.7), (1019.0), and (1020.7) mm (+ 0 / - 3) for pipe sleeves on the west deviation and the west jacking saddles. The QA Inspector observed Quality Control (QC) Inspector Mr. Chung Fu Kuan verify prior to and during the tack-weld operation that the minimum preheat temperature of 110 degrees Celsius was maintained and the welding parameters of JSW welding personnel Mr. Y. Ohta (08-2017) were in compliance with WPS SJ-3177-5 per the SMAW process in the (2F) horizontal position using (4.0) mm diameter LB52 electrode. The QA Inspector observed that the fit-up and tack-weld operation was in-process on the pipe sleeves at the end of the QA Inspectors' shift.

ABF-RFI-001811R00: Modified MC Shapes for East Saddle Rocker Bearing Plates E2-E1 and E2-W1

1) The QA Inspector observed (1) JSW personnel cutting and removing the clamps from the welding fixture after the fillet weld operation was completed on the JIS channel fit up to the web and upper and lower flanges of the modified miscellaneous channel (MC) shape (13 * 31.8) for east saddle rocker bearing plate E2-E1. See ABF-RFI-001811R00 for the purpose of the modification on the MC shape. On this date, the QA Inspector observed that the total time spent in performing the cutting operation and removing the clamps from the fixture was (1) hour for (1) JSW personnel.

Foundry:

Grinding Operation completed on Saddle: East Saddle E2-E1 (cast saddle)

The QA Inspector observed that the JSW personnel completed the grinding operation on the major excavation and minor excavation repair welds previously performed on east saddle E2-E1. The purpose of the JSW personnel performing the grinding operation on the repair welds was to grind the weld to an acceptable profile in accordance with ASTM A802 surface quality category (J) - (metal removal marks- welds) to a visual quality level (3). The next operation to be performed is the non-destructive testing (NDT) operations magnetic particle test (MPT) inspection by the wet method and the ultrasonic test (UT) inspection.

NDT Operation in-process on Cast Saddle: West Jacking Saddle

The QA Inspector observed Nikko Inspection Services (NIS) Quality Control (QC) Non-Destructive Testing (NDT) Inspector Mr. A. Seino (#82) performing the liquid penetrant test (PT) re-inspection on the ground out excavated areas- (2nd time) to ensure the complete removal of defects at various locations on the outside of the trough section, stem section and rib sections of the west jacking saddle. The PT inspection is being performed first on the excavated areas prior to the magnetic particle test (MPT) inspection (wet method) as per JSW's manufacturers procedure plan (MPP) for the west jacking saddle. The QA Inspector observed that the PT inspection was in-process on the remaining excavated areas at the end of the QA Inspectors' shift.

Unless otherwise noted, all observations reported on this date appeared to be in general compliance with the applicable contract specifications.

Summary of Conversations:

No significant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy at (510) 385-5910, who represents the Office of Structural Materials for your project.

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Inspected By:	Peterson, Art	Quality Assurance Inspector
Reviewed By:	Guest, Kittric	QA Reviewer
